

NYE-DT 44



RBC Capital Markets

September 8, 2016

Apache Corporation

Lofty Prospects for Alpine High

Our view: Increased focus on organic onshore resource opportunities could enhance APA's growth and value accretion. It's still early but the Alpine High discovery appears to be a significant resource, albeit with a very high gas and NGL content.

Key points:

Stretching the Permian productive boundary. APA's "Alpine High" discovery targets the Barnett and Woodford formations in the southern Delaware (*RBC map, page 3*). Recent Delaware basin enthusiasm has targeted the oil prone Wolfcamp but APA's find appears to be a prolific high Btu gas play with 2,000-3,000+ potential drilling locations. We have observed APA's activity during the last 6-12 months in this region but with accounts of a deeper gas play, paid modest attention. Management has passionately drawn comparisons to the prolific and economic wet Marcellus, condensate Eagleford, and SCOOP plays. However, the Alpine High is viewed by the company as advantaged with better geology including lower clay content, higher porosity, and greater thickness.

Quietly accumulated scale; still early but encouraging. The company secured 307,000 net acres over the past 18 months at a cost of just \$1,300/acre, compared to recent industry acquisitions that have generally been \$20,000-40,000/acre. APA drilled 19 wells with 9 currently producing. The seven targeting the Woodford and Barnett have average 24-hour IP rates of 9 MMcf/d (88% gas-2 stream). The gas has a high Btu content (1,300) with NGL extraction estimated at 135-140 bbl/Mcf. There were also wells drilled to the oilier Bone Spring (Third) and Wolfcamp that showed strong initial promise but the data and delineation is limited at this point.

Economics look exciting but requires confidence in NGL and natural gas prices. Management provided two typecurves, the over pressured Barnett/Woodford and normal pressured Woodford. The EURs are 1.1 MMboe and 2.7 MMboe with 10-12% oil, 25-30% NGLs, and 60-65% natural gas. Our model indicates a break-even IRR (15% pre-tax) at \$45/\$2 commodity prices but could be as low as mid \$30's/\$1 for the high EUR case at development costs.

Budget increased for Alpine including infrastructure needs. The company also increased 2016 capital spending by \$200 million to \$2 billion with over 25% earmarked to Alpine High. Approximately 40% of the Alpine spending is targeted to infrastructure. With the high liquids gas content we expect there will be a lot of processing needs in the region. Management plans to operate at least 4-5 rigs to the Alpine acreage into 2017.

We have increased our price target by \$2/share to \$62. Our new \$65 NAV now includes a bit over \$5/share for Alpine High but it could be worth \$10-15+/share over time if the play proves to be successful over a large portion of the acreage.

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Sector: Oil & Gas Exploration & Production

Sector Perform

NYSE: APA; USD 55.13

Price Target USD 62.00 ↑ 60.00

WHAT'S INSIDE

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Scenario Analysis*

Downside Scenario	Current Price	Price Target	Upside Scenario
45.00 ↓ 17%	55.13	62.00 ↑ 14%	75.00 ↑ 38%

*Implied Total Returns

Key Statistics

Shares O/S (MM):	379.4	Market Cap (MM):	20,918
Dividend:	1.00	Yield:	1.8%
Float (MM):	375.0	Tr. 12 ROE:	(5.40)%
Debt to Cap:	51%	Enterprise Val. (MM):	20,374
		Avg. Daily Volume:	2,910,248
		3-Yr. Est. EPS Growth:	NA

RBC Estimates

FY Dec	2015A	2016E	2017E	2018E
EPS, Ops Diluted	(0.27)	(1.01)	1.08	2.14
Prev.			1.06	2.04
P/E	NM	NM	51.0x	25.8x
CFPS Diluted	7.95	6.78	10.13	12.22
Prev.				12.01
P/CFPS	6.9x	8.1x	5.4x	4.5x
EPS, Ops Diluted	Q1	Q2	Q3	Q4
2015	(0.37)A	0.22A	(0.06)A	(0.06)A
2016	(0.83)A	(0.26)A	(0.00)E	0.08E
Prev.			0.00E	0.07E
2017	0.09E	0.22E	0.33E	0.44E
Prev.		0.21E		0.43E
CFPS Diluted				
2015	2.39A	1.38A	2.21A	1.98A
2016	1.25A	1.43A	2.01E	2.10E
Prev.				2.09E
2017	2.20E	2.41E	2.64E	2.88E
Prev.		2.40E	2.66E	2.87E

All values in USD unless otherwise noted.



Target/Upside/Downside Scenarios

Exhibit 1: Apache Corp



Source: Bloomberg and RBC Capital Markets estimates for Upside/Downside/Target

Target price/base case

Our \$62/share price target reflects a 5% discount to our NAV. This discount is in line with the large cap average and companies with strong balance sheets. Our base \$65/share NAV is a risked assessment of 3P reserves using the long-term RBC commodity price outlook of \$75/bbl & \$3.50/Mcf (long-term).

We haircut identified locations based on company/industry results, geology, and conservatism. This reduces drilling locations by 20-30% on average.

Upside scenario

Our \$75/share upside scenario assumes better well performance, more success in its multiple resource formations and exploratory acreage, and stronger near-term commodity prices than our base case forecast.

Downside scenario

Our \$45/share downside scenario reflects lower near-term commodity prices and long-term commodity price assumptions.

Investment summary

We believe APA shares should perform in line to its peer group over the next 12 months. Our expectation is for a meaningful improvement in commodity prices through 2017. We expect APA shares to perform more in line the E&P peers in this environment. With a strong balance sheet and low decline asset base, the company is positioned well if lower prices persist and offer less downside risk, in our view.

The company holds a large legacy position in the Permian that could develop into a more significant growth opportunity. Additionally, assets in both Egypt and the UK North Sea offer more conventional exposure with lower cash recycle requirement to maintain production levels.

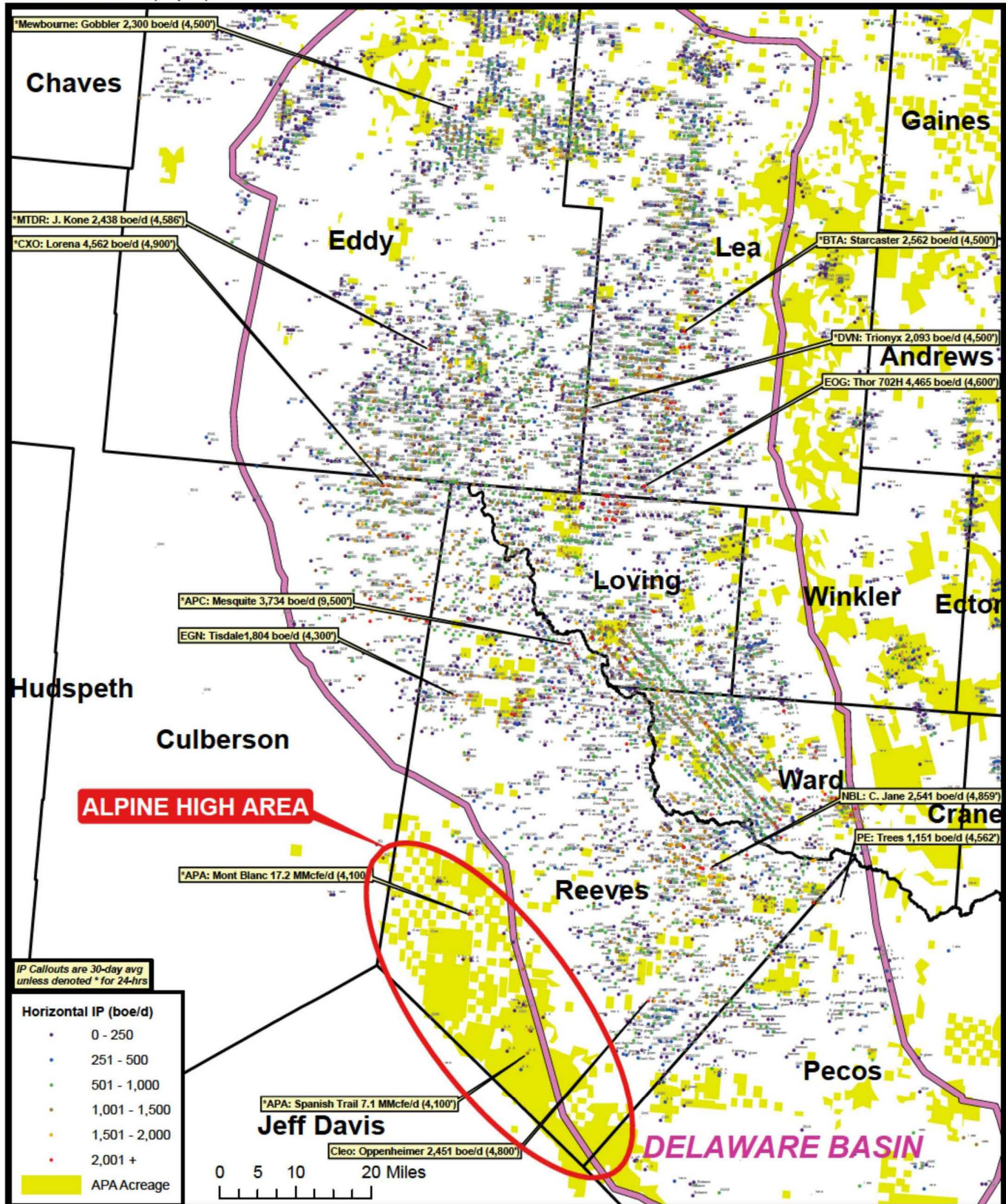
Potential catalysts

- **Permian Basin Development.** The company has a vast acreage position across the Permian Basin, with encouraging results in the Midland and Delaware Basins. Strong results from future delineation activity could increase inventory and unlock value.
- **Alpine High delineation.** The new 307,000 net acre position in the southern Delaware holds the largest catalyst opportunity over the next couple of years, in our view. The market will be focused on individual well performance as initial development occurs.
- **North Sea Discoveries.** APA has a strong track record of UK North Sea exploration and development, with three recent discoveries announced in 2015. Success on future exploration could meaningfully increase ultimate resource potential and extend production.
- **Offshore Suriname (Latin America).** APA has established an offshore acreage position in Suriname with potentially significant exploration upside. In 2017, the company plans drill an exploration prospect on Block 53 and process 3D seismic on Block 58.
- **Asset Monetizations.** The company has successfully streamlined operations by divesting non-core assets over the last three years (\$6.2 billion in 2015 alone). We think further asset sales could be announced.


RBC Capital Markets

 Oil & Gas Exploration & Production
 Apache Corp

Source: RBCCM & Company Reports



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Valuation

Our \$62/share price target is based on a 5% discount to our estimated forward pre-tax NAV. This is in line with the large cap peer average and consistent to companies that have stronger balance sheets and activity focused in the Permian Basin. Our price target along with the NAV upside opportunity supports our Sector Perform rating.

Price target impediments

Risks to our price target and rating include the following:

- Weaker-than-expected commodity prices could cause the stock to perform below our expectations and impede achievement of our price target objective.
- Higher-than-expected commodity prices could cause the stock to perform above our expectations and impede achievement of our price target objective.
- Future growth and value will likely be predicated on the continued success of Permian, UK North Sea, and Egypt development opportunities. If well performance does not meet expectations, this could cause APA shares to underperform the company's peers.
- Geopolitical risks associated with international operations could potentially have a negative impact on operations and impede achievement of our price target objective.

Company description

Apache Corporation (NYSE: APA) is an independent E&P company engaged in acquisition, exploitation, and production activities. Properties are located in the Permian Basin (West Texas), Eagleford Shale (South Texas), Mid-Continent (Oklahoma & Texas Panhandle), US Gulf of Mexico, Canada, UK North Sea, Egypt, and Suriname (Latin America). Corporate headquarters are in Houston, Texas.



RBC Capital Markets

Oil & Gas Exploration & Production
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PRICING & PRODUCTION	2016 Quarterly Results				2017 Quarterly Results				Annual Results			
	1Q16	2Q16	3Q16e	4Q16e	1Q17e	2Q17e	3Q17e	4Q17e	2015	2016e	2017e	2018e
Natural Gas Benchmark (HH; \$/Mcf)	\$1.98	\$2.11	\$2.75	\$2.75	\$2.75	\$3.00	\$3.00	\$3.25	\$2.60	\$2.40	\$3.00	\$3.25
Crude Oil Benchmark (WTI; \$/bbl)	\$33.51	\$45.44	\$50.46	\$52.14	\$54.35	\$57.79	\$60.30	\$62.13	\$48.75	\$45.42	\$58.67	\$65.00
Production Volumes (Unadjusted)												
Natural Gas (MMcf/d)	1,145	1,123	1,100	1,071	1,057	1,060	1,093	1,128	1,131	1,109	1,085	1,161
NGLs (Mbbld)	65	63	60	59	58	59	62	65	62	62	61	68
Crude Oil & Condensate (Mbbld)	286	285	271	267	265	266	274	281	284	277	272	286
Total Production (Mboe/d)	541	535	515	504	499	503	518	534	535	524	514	548
Sequential Change	10%	-1%	-4%	-2%	-1%	1%	3%	3%	-17%	-2%	-2%	7%
% Natural Gas	35%	35%	36%	35%	35%	35%	35%	35%	35%	35%	35%	35%
% NGLs	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
% Crude Oil & Condensate	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	52%
Commodity Price Realizations												
Natural Gas (\$/Mcf)	\$2.14	\$2.04	\$2.64	\$2.73	\$2.82	\$2.93	\$2.95	\$3.09	\$2.86	\$2.38	\$2.95	\$3.12
NGLs (\$/bbl)	\$7.16	\$10.22	\$11.26	\$14.00	\$15.48	\$15.13	\$16.36	\$19.62	\$9.97	\$10.58	\$16.73	\$19.73
Crude Oil & Condensate (\$/bbl)	\$31.62	\$43.14	\$48.02	\$49.91	\$52.84	\$56.00	\$58.23	\$59.85	\$48.09	\$43.03	\$56.81	\$62.70
EARNINGS & CASH FLOW												
Oil & Gas Revenues (net)	\$1,084	\$1,363	\$1,517	\$1,557	\$1,598	\$1,711	\$1,845	\$1,976	\$6,540	\$5,521	\$7,130	\$8,322
Operating Costs & Production Taxes	\$441	\$476	\$561	\$566	\$561	\$578	\$608	\$633	\$2,376	\$2,044	\$2,381	\$2,601
Exploration Expense	95	91	50	50	75	75	75	75	0	286	300	340
Depletion, Depreciation, & Amortization	716	707	701	689	694	706	733	766	4,113	2,813	2,899	3,122
General & Administrative	93	103	80	82	84	87	89	92	374	358	352	396
Net Operating Income	(\$261)	(\$14)	\$124	\$171	\$183	\$266	\$340	\$410	(\$323)	\$20	\$1,199	\$1,863
Interest Expense	\$104	\$102	\$105	\$105	\$105	\$105	\$105	\$105	\$224	\$416	\$421	\$397
Marketing, Midstream & Other	0	0	0	0	0	0	0	0	0	0	0	0
Pref Div / Minority / Equity Affiliates	1	44	13	14	15	17	21	23	(409)	72	76	107
Non-Recurring Items	17	165	0	0	0	0	0	0	28,274	182	0	0
Income Tax Expense	(11)	(81)	6	23	29	60	88	114	(5,293)	(63)	292	550
Reported Net Income	(\$372)	(\$244)	(\$0)	\$29	\$34	\$83	\$126	\$167	(\$23,119)	(\$587)	\$410	\$809
Adjusted Net Income	(\$314)	(\$99)	(\$0)	\$29	\$34	\$83	\$126	\$167	(\$102)	(\$384)	\$410	\$809
Reported EPS	(\$0.98)	(\$0.64)	(\$0.00)	\$0.08	\$0.09	\$0.22	\$0.33	\$0.44	(\$61.20)	(\$1.55)	\$1.08	\$2.14
Adjusted EPS	(\$0.83)	(\$0.26)	(\$0.00)	\$0.08	\$0.09	\$0.22	\$0.33	\$0.44	(\$0.27)	(\$1.01)	\$1.08	\$2.14
DCFPS	\$1.25	\$1.43	\$2.01	\$2.10	\$2.20	\$2.41	\$2.64	\$2.88	\$7.95	\$6.78	\$10.13	\$12.22
EBITDAX	\$552	\$787	\$945	\$981	\$1,026	\$1,123	\$1,227	\$1,333	\$3,896	\$3,266	\$4,709	\$5,681
Diluted Shares Outstanding	378	379	379	379	379	379	379	379	378	379	379	379
OPERATING MARGINS (\$/BOE)												
Pre-Hedge Revenue	\$22.07	\$28.45	\$32.26	\$33.84	\$35.79	\$37.66	\$38.95	\$40.44	\$32.75	\$29.06	\$38.27	\$41.83
Net (Loss) / Gain on Hedges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cash Operating Costs	(8.95)	(9.77)	(11.85)	(12.22)	(12.49)	(12.64)	(12.77)	(12.88)	(12.17)	(10.67)	(12.70)	(13.01)
General & Administrative	(1.89)	(2.11)	(1.69)	(1.76)	(1.87)	(1.89)	(1.87)	(1.87)	(1.91)	(1.87)	(1.88)	(1.98)
Gross Margin	\$11.22	\$16.57	\$18.72	\$19.87	\$21.43	\$23.12	\$24.31	\$25.69	\$18.67	\$16.52	\$23.69	\$26.84
Non-Cash DD&A	(14.54)	(14.51)	(14.81)	(14.87)	(15.45)	(15.44)	(15.38)	(15.59)	(21.06)	(14.68)	(15.46)	(15.61)
Operating Margin	(\$3.31)	\$2.06	\$3.91	\$5.00	\$5.99	\$7.69	\$8.93	\$10.10	(\$2.39)	\$1.85	\$8.23	\$11.23
FREE CASH FLOW & LEVERAGE												
Free Cash Flow												
Discretionary Cash Flow	\$471	\$542	\$760	\$794	\$836	\$913	\$1,002	\$1,090	\$3,004	\$2,568	\$3,841	\$4,631
Exploration & Development CAPEX	438	505	483	538	627	768	888	962	3,577	1,964	3,244	4,347
Free Cash Flow	\$33	\$37	\$278	\$256	\$209	\$146	\$114	\$129	(\$573)	\$604	\$597	\$284
Drilling CAPEX / Cash Flow Ratio	0.9x	0.9x	0.6x	0.7x	0.8x	0.8x	0.9x	0.9x	1.2x	0.8x	0.8x	0.9x
Leverage												
Cash & Equivalents	\$1,004	\$1,201	\$1,334	\$1,595	\$1,647	\$1,623	\$1,554	\$1,496	\$1,467	\$1,595	\$1,496	\$435
Total Debt	8,719	8,720	8,720	8,720	8,720	8,720	8,720	8,720	8,778	8,720	8,720	8,170
Net Debt	\$7,715	\$7,519	\$7,386	\$7,125	\$7,073	\$7,097	\$7,166	\$7,224	\$7,311	\$7,125	\$7,224	\$7,735
Net Debt / EBITDA (ttm)	2.3x	2.5x	2.4x	2.2x	1.9x	1.7x	1.6x	1.5x	1.9x	2.2x	1.5x	1.4x
EBITDA / Interest Expense	5.4x	6.2x	8.9x	9.2x	9.7x	10.4x	11.3x	12.1x	23.0x	7.4x	10.9x	13.5x
Net Debt / Book Capital	49.5%	50.5%	50.4%	50.2%	50.2%	50.3%	50.4%	50.3%	73.6%	50.2%	50.3%	50.3%
Credit Facility (Size)												
Bank Commitments	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500
Amount Drawn	0	0	0	0	0	0	0	0	0	0	0	0
Net Credit Facility Availability	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500

Source: RBC Capital Markets Estimates & Company Reports

Financial Values in US \$MM's



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			Count	Percent
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